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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,558

04/02/2004

Horst Hoffmann

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7590

05/24/2006

HENKEL CORPORATION  
THE TRIAD, SUITE 200  
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GULPH MILLS, PA 19406

EXAMINER

RAZA, SAIRA B

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/817,558

Applicant(s)

HOFFMANN ET AL.

Examiner

Saira Raza

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1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on March 17, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-18,20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4,6 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 6-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1, 3, 4, 6-18, 20-22 are objected to because of the following informalities: the claims are difficult to read due to poor printing. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 7 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. in view of Henkel.

4. Schneider teaches multilayer thermoformable composite veneer films to be heated and applied to shaped wood parts, wood boards, plasterboard, metal, or metal sheets (abstract; col. 2 lines 31-46). Hot-melt polyurethane adhesives are used to apply the films to the substrates (col. 8 lines 12-22; examples). Several of the layers of the film may contain poly(meth)acrylate materials (col. 4 lines 24-41; col. 5 lines 14-28; col. 5 lines 42-65), demonstrating the application of an acrylate-containing film to a substrate via polyurethane hot-melt adhesive. The exterior layer is pre-treated by corona treatment to aid the adhesion of the bonding layer (col. 7 lines 45-50). However, the reference does not disclose the applicant's specific adhesive composition. Hence attention is directed towards the Henkel reference.

5. Henkel discloses moisture-curable hot melt polyurethane adhesives comprising reaction products of polyisocyanates and hydroxyl-containing low molecular weight polymers derived from ethylenically unsaturated monomers (abstract). Prepolymers are made by reacting the polyisocyanate with polyether polyols, polyester polyols, and/or aromatic polyols (p. 10 lines 5-7). Mixtures of crystalline and amorphous polyesters are used (p. 11 lines 27-29). Specifically, Henkel discloses that

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mixture of 2 to 3 polyether polyols differing in their average molecular weight may be used, preferred polyether polyols are diols, wherein the average molecular weight (number average molecular weight) of the polyether polyols is in the range from 200 to 10,000 and preferably in the range of 400 to 6,000. Henkel provides guidance on the desired average molecular weight of the polyether polyol diols, specifically; Henkel guides one towards the lower end of the average molecular weight range. Hence, Henkel would envisage employment of the polyether polyol diols as claimed. Tackifying resins are used, including those containing active hydrogen groups (p. 10 lines 8-25; p. 14 lines 25-27; p. 15 lines 30-31). Henkel teaches moisture-cured hot melt polyurethane adhesives having improved heat resistance, moisture resistance, and solvent resistance when applied to wood substrates (p. 18 lines 3-12).

6. Therefore, it would have been prima facie obvious to use the hot-melt adhesives of Henkel's invention as the bonding layer in Schneider's articles to provide improved heat resistance, moisture resistance, and solvent resistance.

7. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al. in view of Henkel.

8. Fields discloses flexible, weatherable decorative sheet materials comprising color coats, clear coats, adhesives, and a thermoformable backing (figures 4-5). Both pigmented and colorless paint films are formed from alloys containing methacrylate polymers (col. 6 line 26-col. 7 line 15; example). Adhesives used to attach the paint films to a thermoformable backing include urethane adhesives (col. 7 lines 46-51), and thermoformable backings include ABS, PVC, and polypropylene (col. 8 lines 25-34). However, the reference does not disclose the applicant's specific adhesive composition. Hence, attention is directed towards the Henkel reference.

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9. Henkel discloses moisture-curable hot melt polyurethane adhesives comprising reaction products of polyisocyanates and hydroxyl-containing low molecular weight polymers derived from ethylenically unsaturated monomers (abstract). Prepolymers are made by reacting the polyisocyanate with polyether polyols, polyester polyols, and/or aromatic polyols (p. 10 lines 5-7). Mixtures of crystalline and amorphous polyesters are used (p. 11 lines 27-29). Specifically, Henkel discloses that mixture of 2 to 3 polyether polyols differing in their average molecular weight may be used, preferred polyether polyols are diols, wherein the average molecular weight (number average molecular weight) of the polyether polyols is in the range from 200 to 10,000 and preferably in the range of 400 to 6,000. Henkel provides guidance on the desired average molecular weight of the polyether polyol diols, specifically; Henkel guides one towards the lower end of the average molecular weight range. Hence, Henkel would envisage employment of the polyether polyol diols as claimed. Tackifying resins are used, including those containing active hydrogen groups (p. 10 lines 8-25; p. 14 lines 25-27; p. 15 lines 30-31). Henkel teaches moisture-cured hot melt polyurethane adhesives having improved heat resistance, moisture resistance, and solvent resistance when applied to thermoplastic substrates (p. 18 lines 3-12; p. 23 lines 5-15). Thus, it would have been prima facie obvious to use the hot-melt adhesives of Henkel's invention as the bonding layer in Schneider's articles to provide improved heat resistance, moisture resistance, and solvent resistance.

**10.** Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. in view of Henkel as applied to claims 7 and 12-15 above, and further in view of Kokrhanek.

**11.** Schneider and Henkel apply as above, teaching the application of synthetic veneers to wood parts but failing to teach a pretreatment step for the wood before the veneers are applied. Kokrhanek teaches that primer layers are used on the wood layers to promote adhesion of the

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bonding layer (col. 7 lines 6-21). It is the examiner's position that it would have been *prima facie* obvious to use primer layers in the inventions of Schneider and Henkel to promote the adhesion of the bonding layers.

***Allowable Subject Matter***

12. Claims 1, 3-4, 6, and 20-22 are allowed as per the reasons disclosed in the Final Office Action mailed on October 20, 2005.

***Declaration under 37 CFR §1.132***

13. The Declaration under 37 CFR 1.132 filed March 17, 2006 is insufficient to overcome the rejection of the claims as set forth in the above because: the results are not representative of the closest prior art. The examples of the specification do not provide sufficient evidence to suggest unexpected results. Case law holds that evidence is insufficient to rebut a *prima facie* case if not commensurate in scope with the claimed invention. *In re Grasselli*, 713 F.2d 731, 741, 218 USPQ 769, 777 (Fed. Cir. 1983). Case law holds that evidence of superior properties in one species is insufficient to establish the nonobviousness of a subgenus containing hundreds of compounds. *In re Greenfield*, 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978).

***Response to Arguments***

14. In response to applicant's arguments that Schneider does not disclose the poly(meth)acrylate film, it is noted that the poly(meth)acrylate film as claimed by applicant does not obviate the presence of other components in the film. Since the specification does not suggest that materials should be excluded from the acrylic layer and does not teach the adverse affects on the invention by including other materials, it is the examiner's position that the acrylic layers are still open to additional materials, including those of the references.

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15. In response to applicant's argument that there is no suggestion to combine the Henkel reference with Schneider or Fields, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to use the adhesives of Henkel as the bonding layer in the invention of either Schneider or Fields is to use moisture-cured hot melt polyurethane adhesives having improved heat resistance, moisture resistance, and solvent resistance when applied to wood and thermoplastic substrates. Note, it is not necessary for the Henkel reference to disclose that the adhesives are useful in the bonding of poly(meth)acrylate film to wood or thermoplastic substrates, since Henkel discloses that the adhesive are suitable for the bonding of the substrates; and one of ordinary skill in the art would have considered it logical to anticipate with a high degree of probability that a trial of the substitution of the adhesives of Henkel in the invention of either Schneider or Fields would have been successful. Only a reasonable expectation of success, not absolute predictability is necessary for obviousness. *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-52 (Fed. Cir. 1985). *In re Pantzer*, 341 F.2d 121, 126; 144 USPQ 415, 419 (CCPA 1965).


16. In response to applicant's argument that the contact adhesives of the Kokrhanek reference do not contain polyurethane prepolymers bearing reactive NCO groups, Kokrhanek discloses that the contact adhesive layers, which are applied to the primer layers, are comprised of polyurethane, isocyanate, and a catalyst (column 4, lines 38-45).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saira Raza whose telephone number is (571) 272-3553. The examiner can normally be reached on Monday-Friday from 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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